Installation Instructions

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9/93
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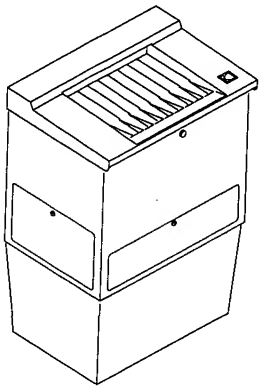
10/82



KODAK RP X-OMAT Processor Model M7B

HEALTH SCIENCES

WARNING

To avoid hazardous conditions, keep floors and floor coverings around your *Kodak X-Omat* Processor and associated drains clean and dry at all times. Any accumulation of fluids from mixing tanks, drain lines, etc., should be cleaned up immediately. In the event of an accumulation of liquid due to backup, overflow, or other malfunction of the drain associated with your *X-Omat* Processor, call a plumber or other contractor to correct any problem with your drain. Kodak accepts no responsibility or liability whatsoever for the serviceability of any drain connected to or associated with a *Kodak X-Omat* Processor. Such drains are the sole responsibility of the customer.

CAUTION

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

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NOTE

Use qualified personnel to install the PROCESSOR.

PLEASE NOTE

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IMPORTANT

Check that you have all the parts below before you start the installation.

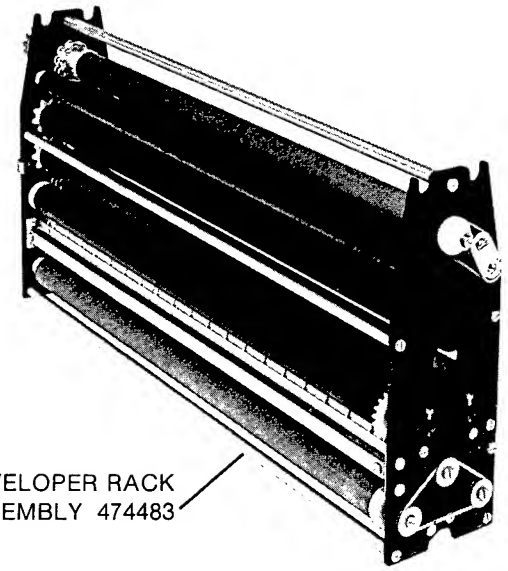
√	Part No.	Part Name	Quantity	Figure No.
(D)	~~454876~~	~~DECANTER~~	~~1~~	~~26~~
	459432	TRAY - RACK DRIP	1	17
(D)	~~459561~~	~~MIX PADDLE~~	~~1~~	~~25~~
(R)	562790	FILTER CARTRIDGE	1	24
	472261	STRAINER	2	12
	474481	CROSSOVER ASSEMBLY - DETECTOR	1	17
	474483	RACK ASSEMBLY - DEVELOPER	1	2,17
	474484	CROSSOVER ASSEMBLY - DEV/FIX	1	17
	532003	RACK ASSEMBLY - WASH	1	2,13
	532004	CROSSOVER ASSEMBLY - FIX/WASH	1	17
	532012	RACK ASSEMBLY - FIXER	1	2,17
	532136	WEIR - TANK	3	25
(D)	~~532247~~	~~SPROCKET—50 Hz~~	~~1~~	~~4~~
	532286	FILM GUIDE ASSEMBLY	1	14
	532366	SPLASH GUARD ASSEMBLY	1	26
	532380	EXHAUST ADAPTER	1	11
	534720	GASKET - LIGHT-LOCK	1	5
	539166	BRACKET - WALL-MOUNTING	4	7
	592380	REPLENISHER TUBING	1	12
	594782	CONDUIT - POWERLINE	1	8
(R)	613122	EVAPORATION COVER	2	22
	595429	SUPPORT	1	4
	Envelope No.1			
	144097	WING NUT	4	4
	853072	SCREW - LEVELING	4	3,6
	Envelope No. 2			
	516425	FLOOR PLATE	4	6
	852520	SCREW	4	4
	852611	WASHER	4	4
	Envelope No. 3			
	474803	CLAMP #6	6	12
	474811	CLAMP #22	1	10
	852620	NUT	2	11
	852805	SCREW	4	7
	853831	WASHER	2	11
	852870	SCREW	2	11
	853086	WASHER - LOCK	4	4
	853096	WASHER - LOCK	2	11

FIGURE 1

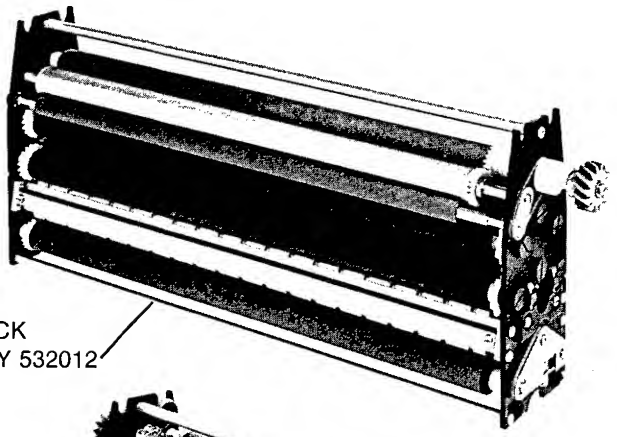
Removal of the RACK ASSEMBLIES from the Cartons.

1

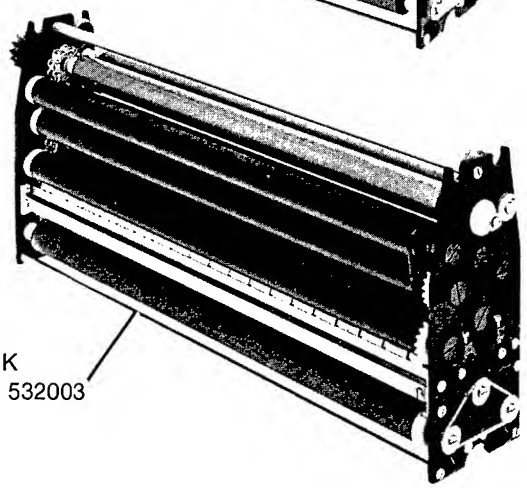
(1) Remove the following RACK ASSEMBLIES:



DEVELOPER RACK ASSEMBLY 474483

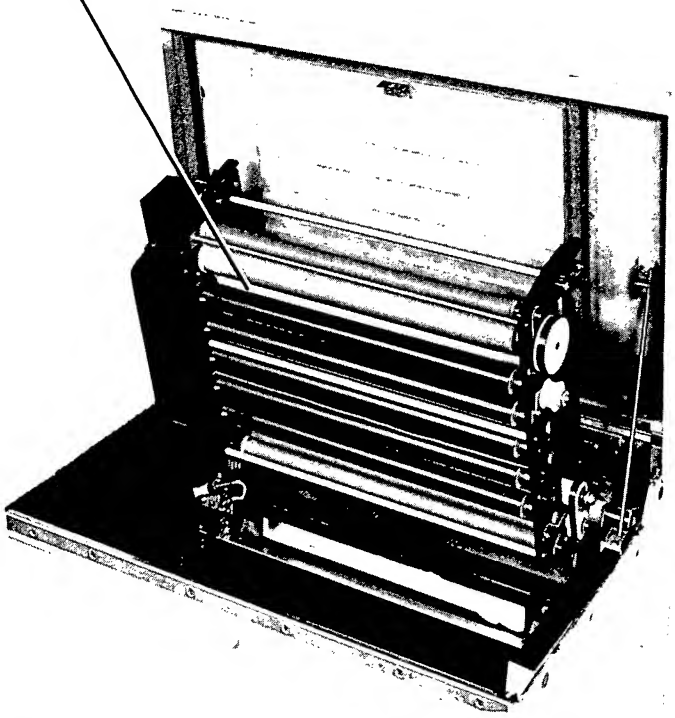


FIXER RACK ASSEMBLY 532012



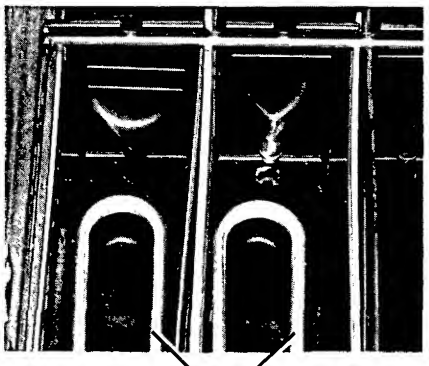
WASH RACK ASSEMBLY 532003

(2) Check for and remove material under the DRYER ASSEMBLY and the HEAT EXCHANGERS.



NOTE

Rinse the RACK ASSEMBLIES with warm water. Rotate the ROLLERS manually. Check that the ROLLERS rotate freely. Check that all the moving parts engage correctly.



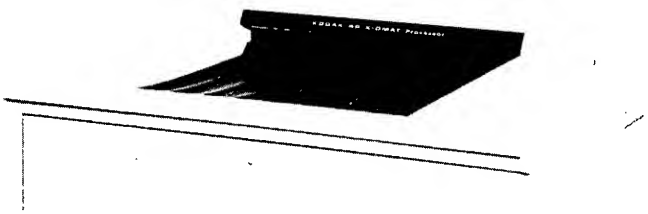
HEAT EXCHANGERS

FIGURE 2

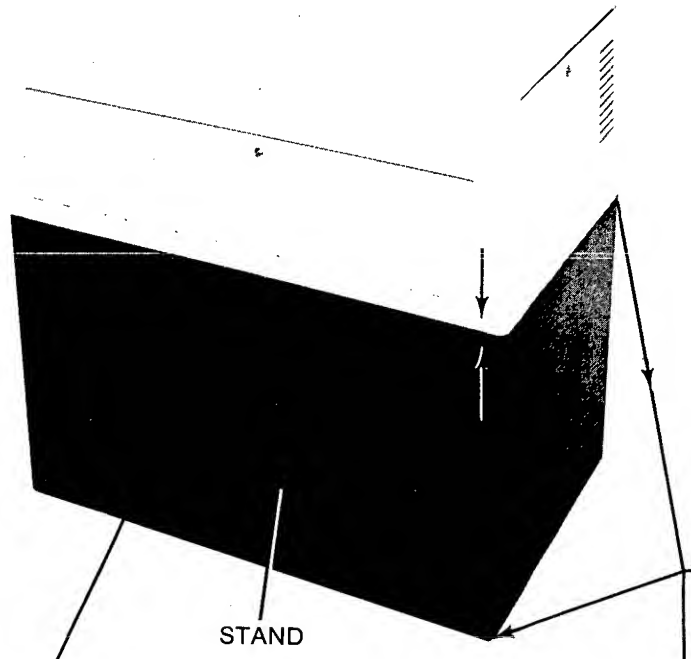
2 Moving the PROCESSOR onto the MOUNTING STAND.

WARNING

The PROCESSOR weighs 125 kg (275 pounds).



(1) Install the PROCESSOR onto either the *KODAK* RP *X-OMAT* MOUNTING STAND, MODEL M7, or other STAND.



(2) If you use the *KODAK* RP *X-OMAT* MOUNTING STAND, MODEL M7, remove the 4 LEVELING SCREWS from inside the STAND and install them into the bottom of the STAND.

(3) Fasten the PROCESSOR to the STAND. Use 4 SCREWS 853072.

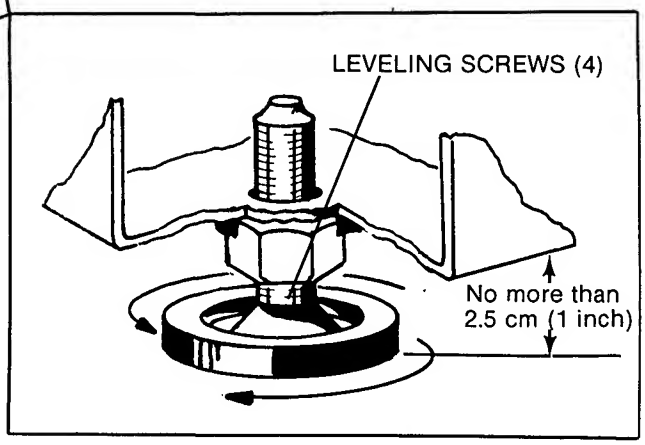
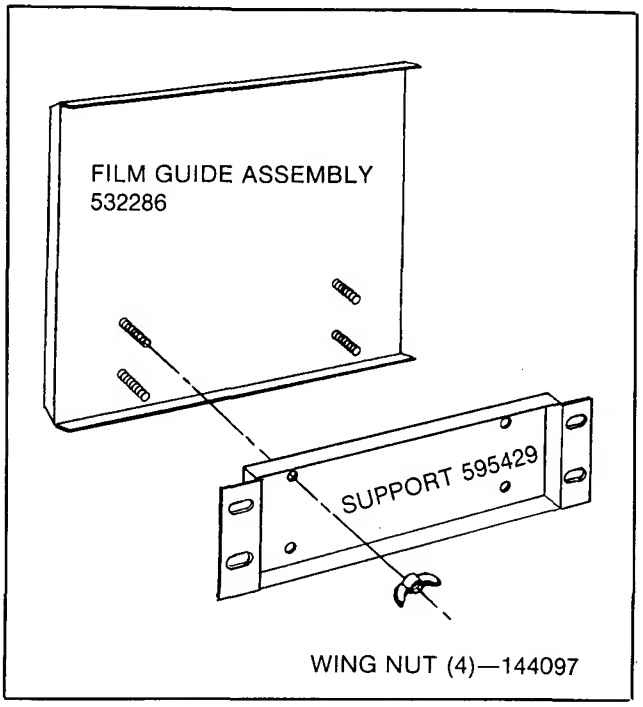


FIGURE 3

Installing the FILM GUIDE ASSEMBLY

3



(1) Fasten the FILM GUIDE ASSEMBLY 532286 to the SUPPORT 595429. Use the 4 WING NUTS 144097.

(2) Fasten the SUPPORT 595429 to the PROCESSOR. Use the 4 SCREWS 852520, 4 WASHERS 852611, and 4 LOCK WASHERS 853086.

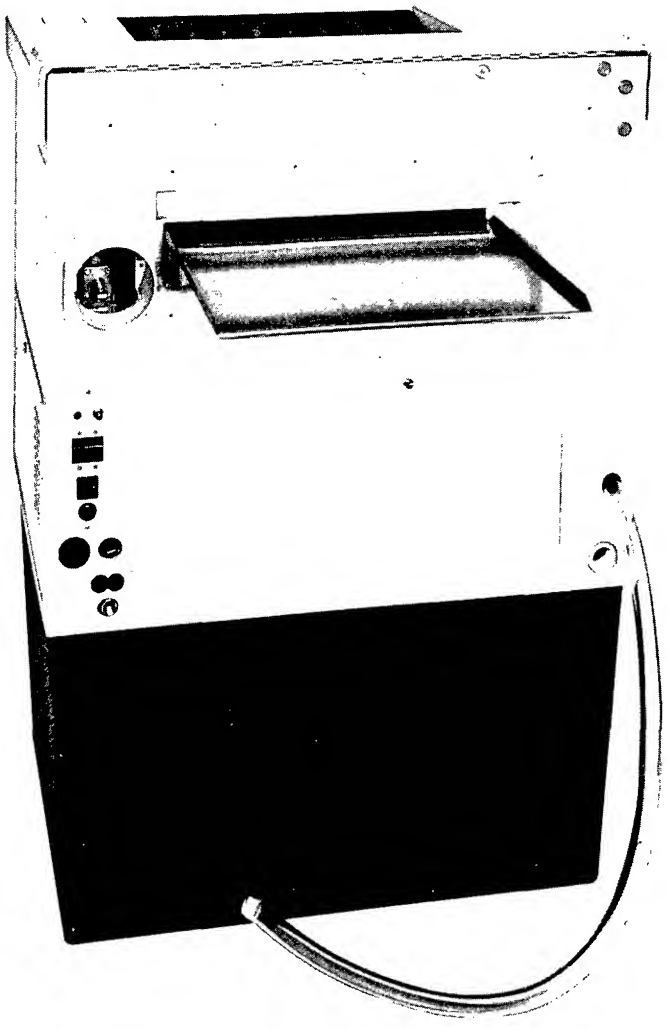
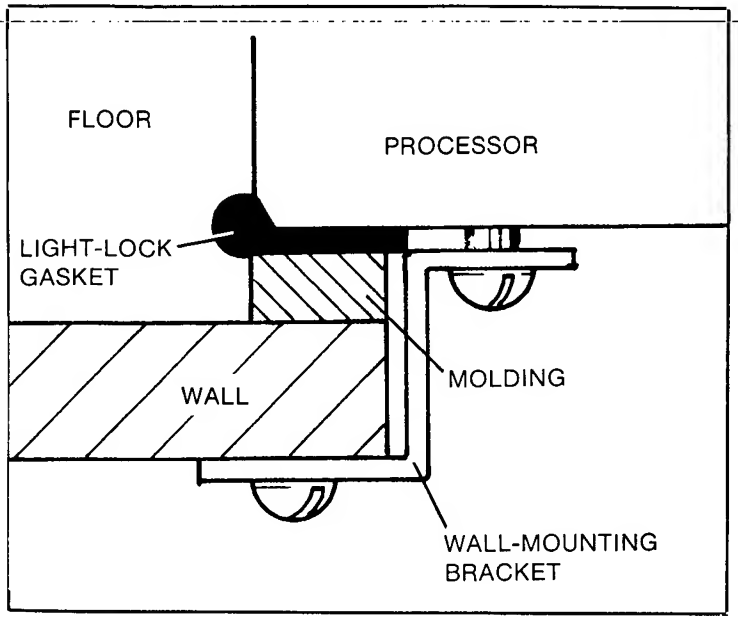


FIGURE 4

4 Installing the LIGHT-LOCK GASKET



Install LIGHT-LOCK GASKET 534720 onto the MOLDING. Move the PROCESSOR against the wall. Refer to the Suggested Room Layout.

CAUTION

Do not pull the LIGHT-LOCK GASKET too tightly.

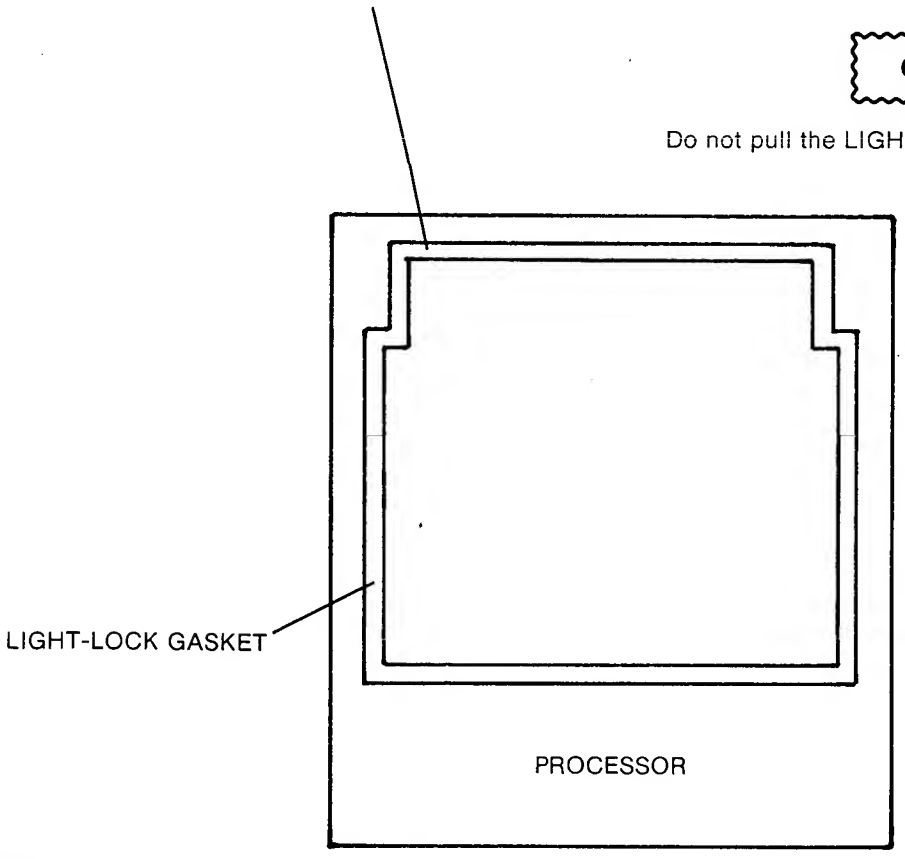


FIGURE 5

Adjusting the LEVELING SCREWS

5

NOTE

Allow space for replenisher tubing.

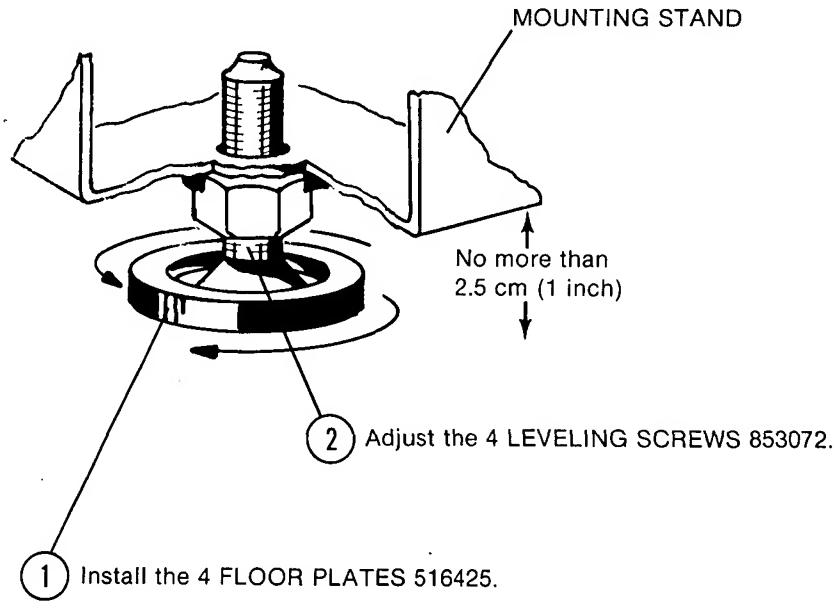
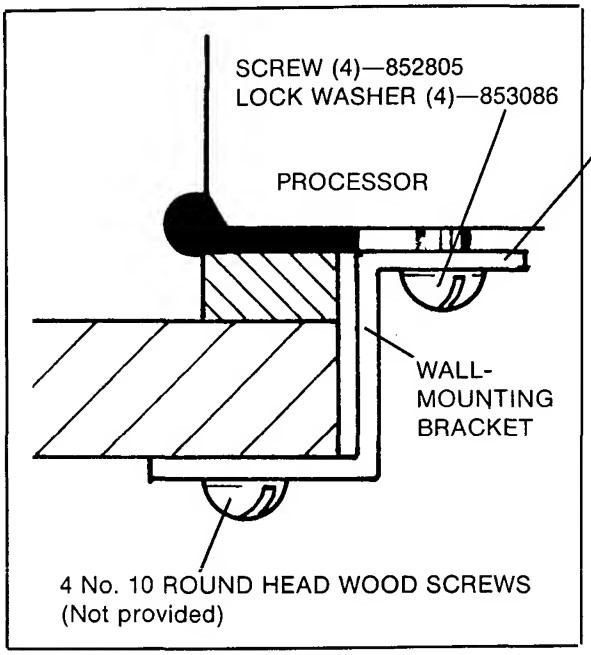


FIGURE 6

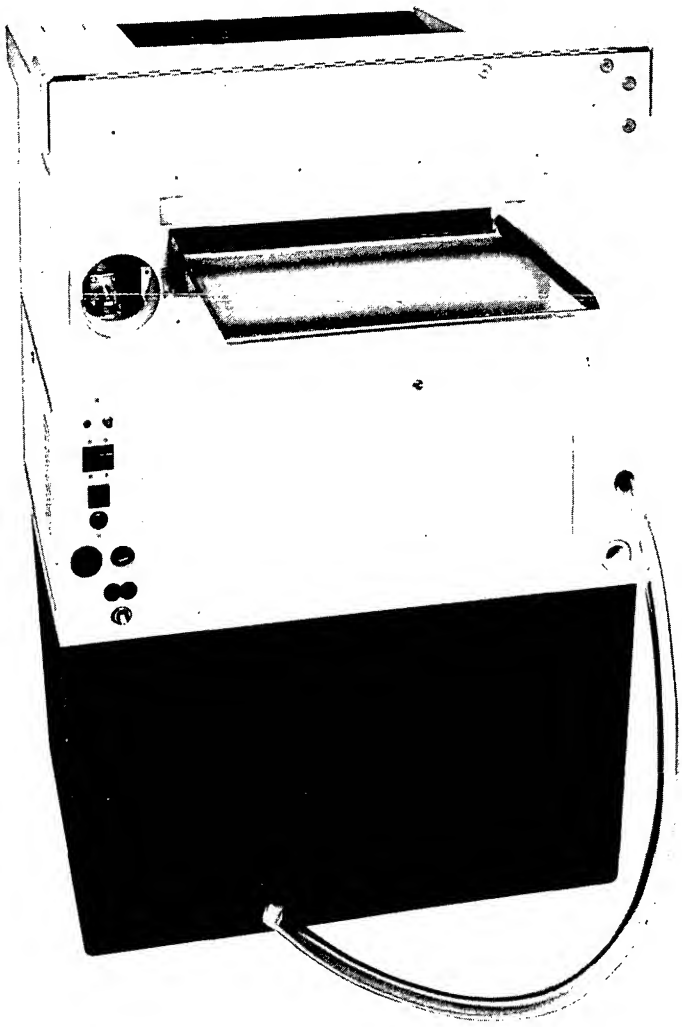
6 Installing the WALL-MOUNTING BRACKETS

(1) Move the PROCESSOR to the wall.

(2) Level the PROCESSOR before you tighten the WALL-MOUNTING BRACKETS.



(3) Fasten the short side of each of the WALL-MOUNTING BRACKETS 539166 to the PROCESSOR. Use the 4 SCREWS 852805 and the 4 LOCK WASHERS 853086.



(4) Fasten the PROCESSOR to the wall with 4 No. 10 ROUND HEAD WOOD SCREWS (not provided).

FIGURE 7

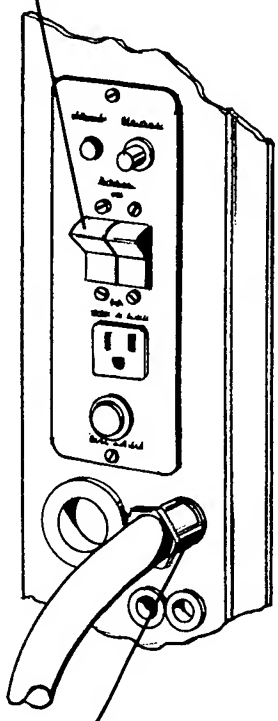
Making the ELECTRICAL CONNECTIONS (Page 1 of 2)

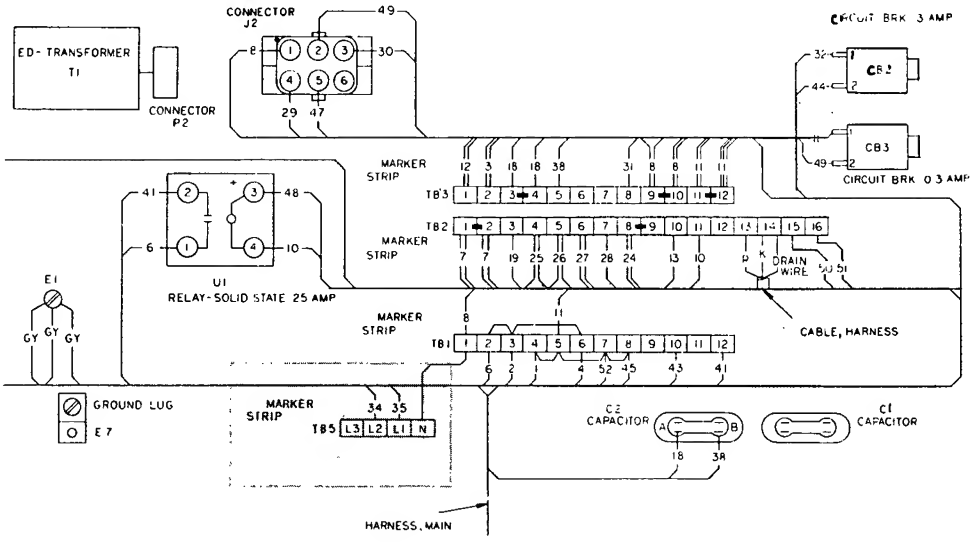
WARNING

Dangerous Voltage

(1) Disconnect the main power source.

(2) Move the CIRCUIT BREAKER on the PROCESSOR to "OFF."





IMPORTANT

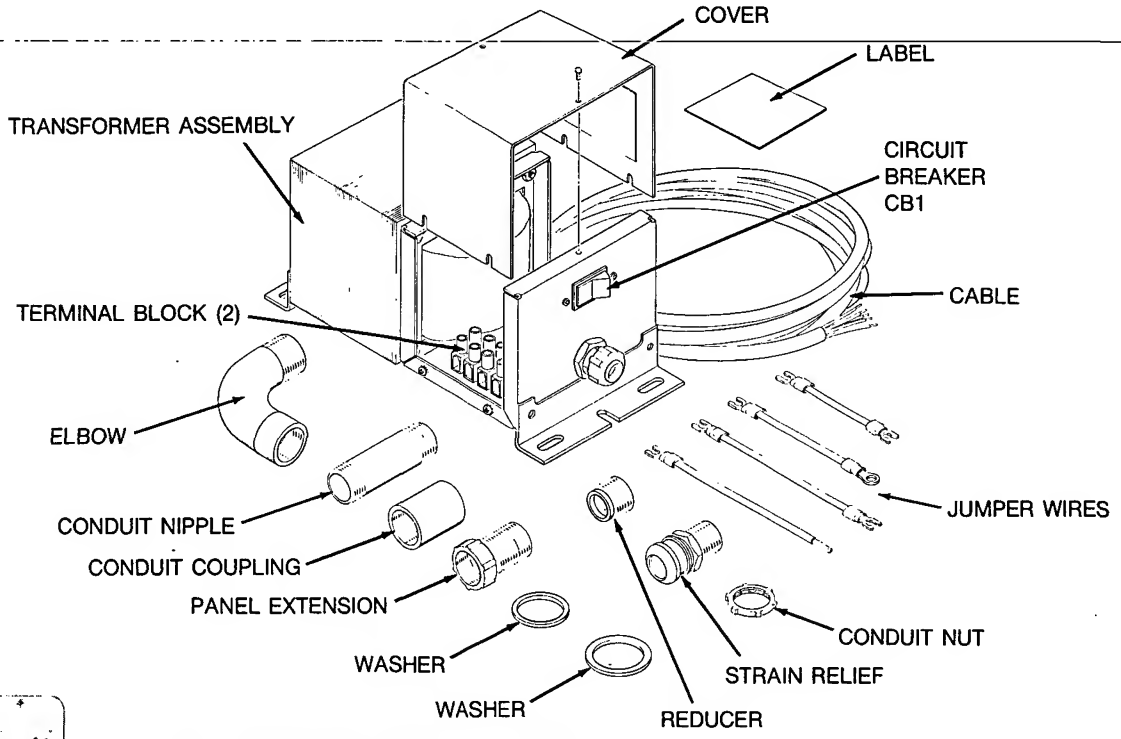
Check and follow local electrical codes.

(3) Install the CONDUIT 594782 if necessary.

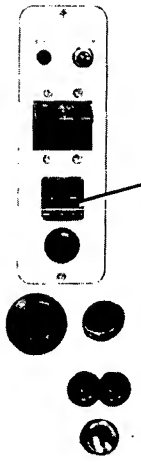
(4) Connect the wires from the main CIRCUIT BREAKER to L1, L2, and N, on TB5. Connect the GROUND to E7.

FIGURE 8

7 Making the ELECTRICAL CONNECTIONS
(Page 2 of 2)



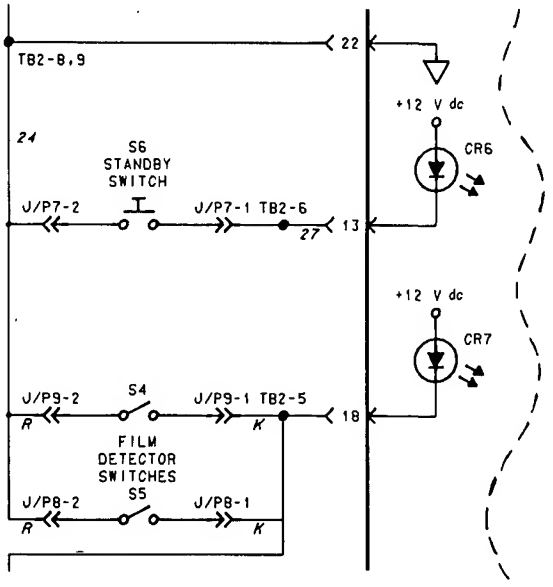
(A) Transformer Kit, Model M7



(5) Use the ACCESSORY OUTLET only for safelight connection.

CAUTION

The OUTLET has 1 AMP MAX.



Part of the Existing CIRCUIT DIAGRAM for the MODEL M7B

(6) If it is necessary to attach automatic film-handling equipment to the PROCESSOR, provide the following conditions:

a. A momentary CONTACT CLOSURE (SWITCH) parallel with STANDBY SWITCH S6 in the 12-volt circuit. The circuit returns the PROCESSOR from standby to run condition.

b. An interface circuit on TB2 between terminal 6 (wire 27) and terminals 8 and 9. Use 4.76 mm (3/16-inch) FASTENERS.

FIGURE 9

Making the WATER and DRAIN CONNECTIONS

8

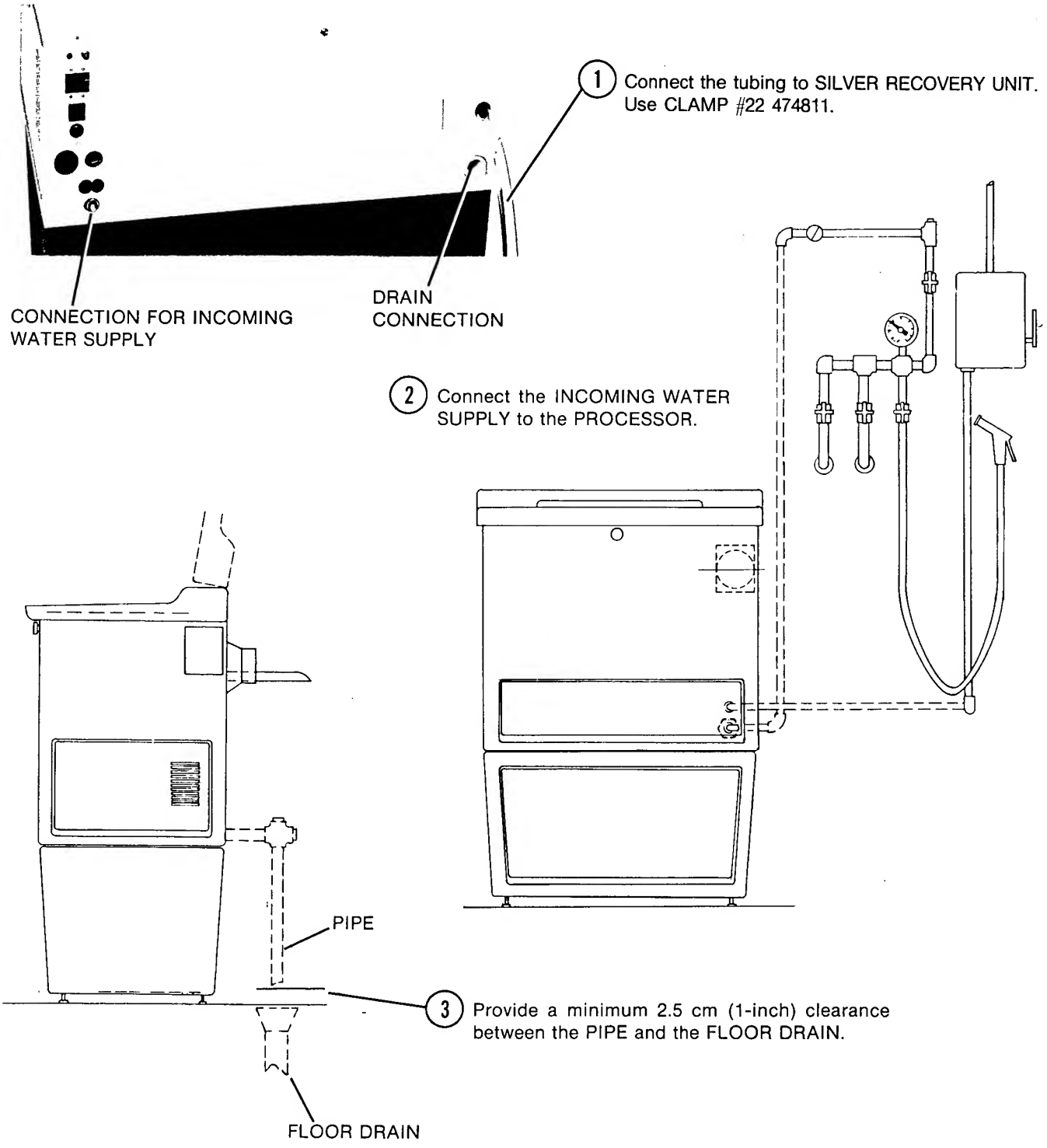
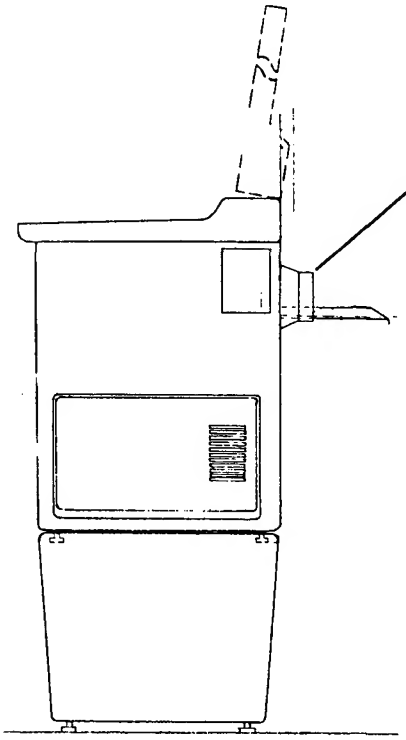

1 Connect the tubing to SILVER RECOVERY UNIT. Use CLAMP #22 474811.
CONNECTION FOR INCOMING WATER SUPPLY
DRAIN CONNECTION
2 Connect the INCOMING WATER SUPPLY to the PROCESSOR.
PIPE
3 Provide a minimum 2.5 cm (1-inch) clearance between the PIPE and the FLOOR DRAIN.
FLOOR DRAIN

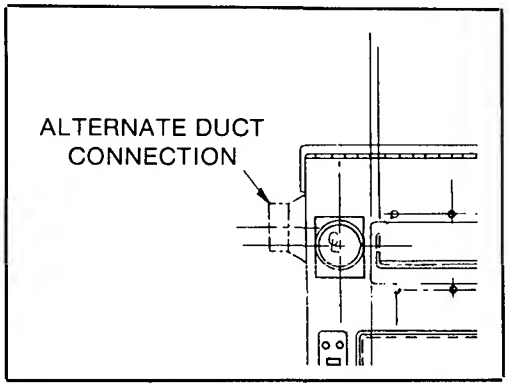
FIGURE 10

9 Making the EXHAUST CONNECTIONS



1. Install the EXHAUST ADAPTER 532380 in either position.
   Use SCREW (2) 852870
   WASHER (2) 852831
   LOCK WASHER (2) 853096
   NUT (2) 852620

2. Connect a 10.2-cm (4-inch) ELBOW and DUCT or flexible EXHAUST HOSE (not provided) to the EXHAUST ADAPTER.



3. If you connect the EXHAUST HOSE from the PROCESSOR to the BUILDING DUCT, do the following:

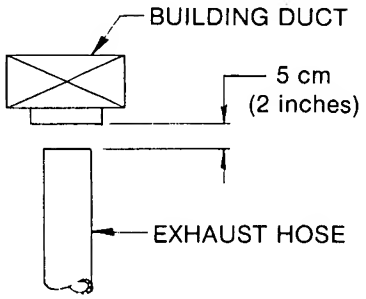


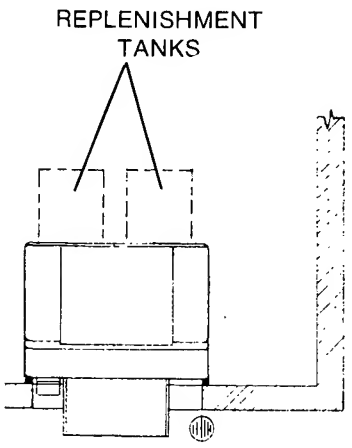
FIGURE 11

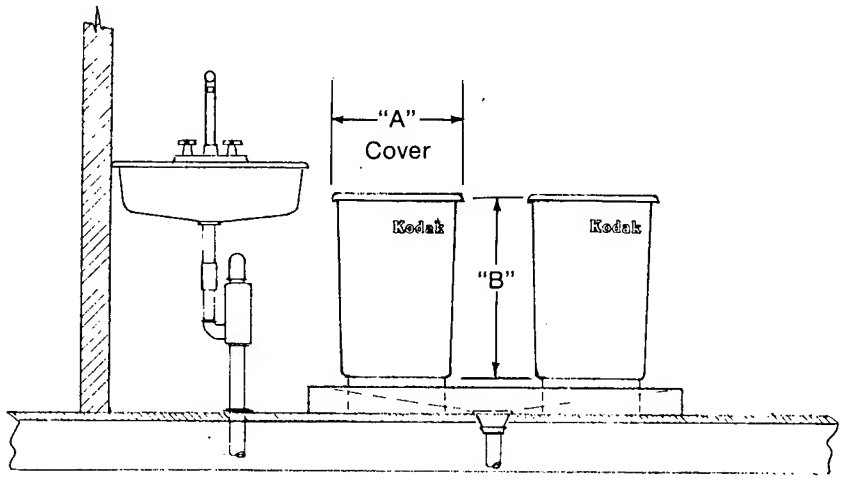
Making the Connections from the REPLENISHER TANKS to the REPLENISHER PUMP

10

Internal 30-litre (8-gallon) REPLENISHMENT TANKS

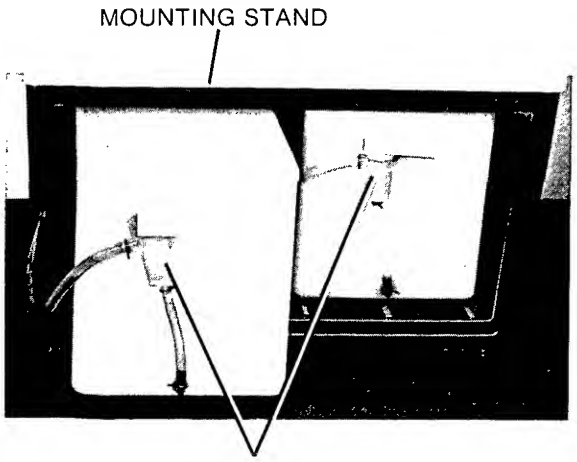
External 53-litre (14-gallon) REPLENISHMENT TANKS

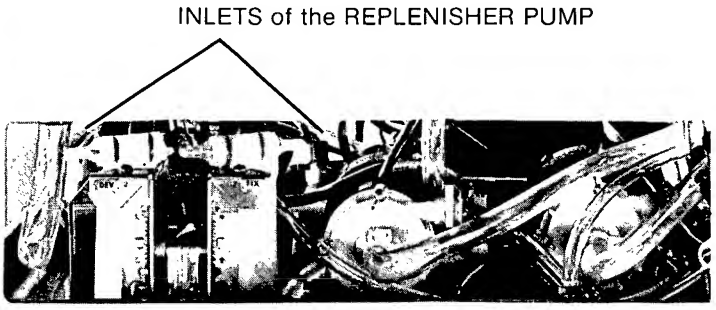




REPLENISHMENT TANKS

	SYMBOL	14 GAL	30 GAL	55 GAL
TANK DIAMETER	"A"	16 3/4"	22"	24"
TANK HEIGHT	"B"	22 1/2"	27 3/4"	35 3/4"



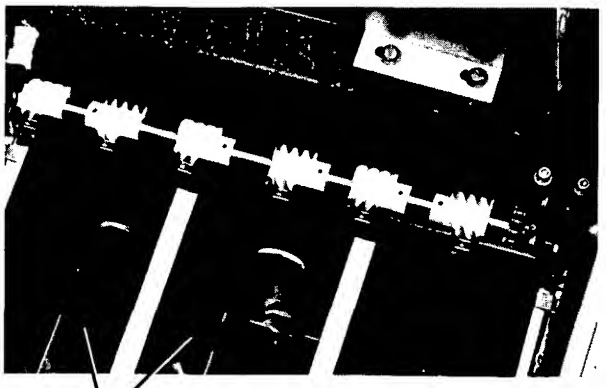


Connect the STRAINERS 472261 and REPLENISHER TUBING 592380 to INLETS of the REPLENISHER PUMP. Use CLAMP #6 474803.

FIGURE 12

11 Checking the Operation of the PROCESSOR

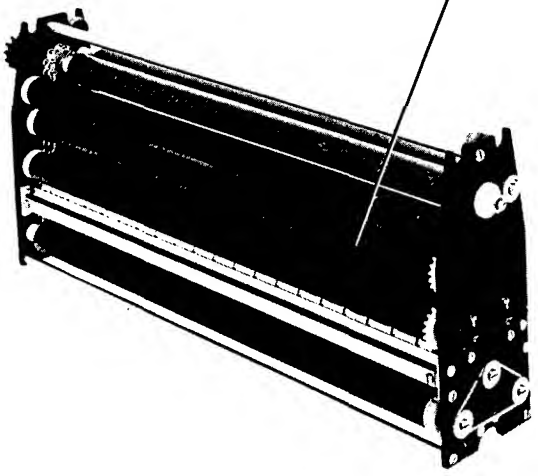
(1) Rinse all the TANKS with water.



(3) Fill the DEVELOPER and FIXER TANKS with water.

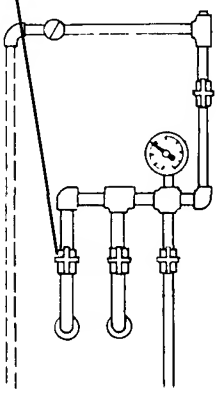
(2) Close the CLAMP.

Install the WASH RACK ASSEMBLY 532003. (4)

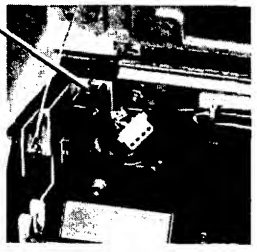


(5) Move the CIRCUIT BREAKER on the PROCESSOR to "ON."

(6) Open the WATER VALVE on the wall to provide water to the PROCESSOR.



(7) Lift the LEVER of the INTERLOCK SWITCH so that the PROCESSOR operates with the cover open.



(8) Check for agitation on the surface of the water. If there is movement, the PUMPS are operating.

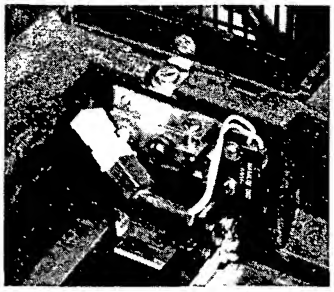
(9) Check all connections for leakage.

FIGURE 13

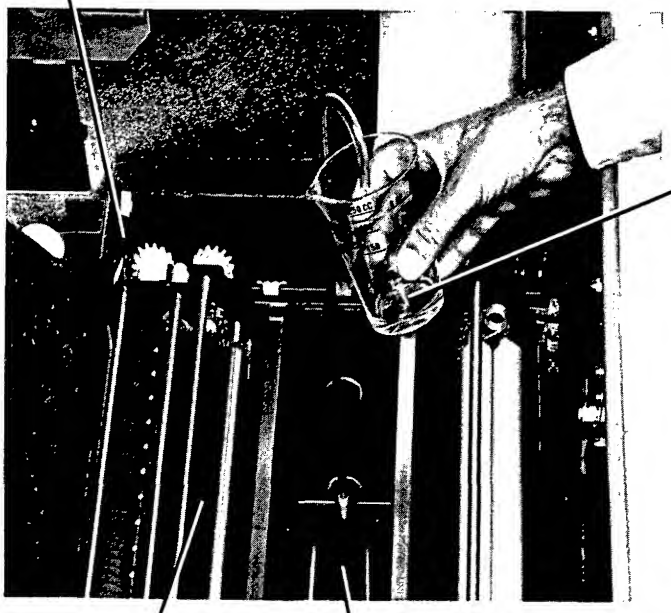
(R) Checking the Replenishment Rates

12

(Page 1 of 2)



DETECTOR SWITCH ASSEMBLIES



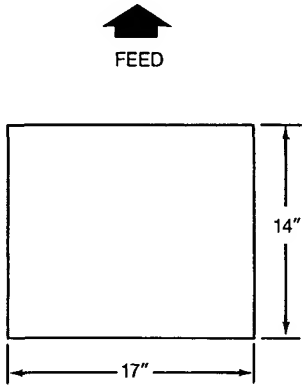
DEVELOPER RACK

FIXER TANK

CAUTION

Do not drain the developer from the TANK.

1. Remove the DETECTOR CROSSOVER ASSEMBLY and the DEVELOPER RACK ASSEMBLY.
2. Insert the CHECK TUBE into the hole. Do the DEVELOPER TANK first.
3. Install the DEVELOPER CROSSOVER ASSEMBLY.
4. Actuate the DETECTOR ASSEMBLY. Allow the solution to flow into the CHECK TUBE, releasing the air.
5. Release the DETECTOR SWITCH ASSEMBLY.
6. To measure the replenishment rate,* hold a graduate under the CHECK TUBE; actuate the DETECTOR ASSEMBLY for 20 seconds or feed a 14 x 17-inch film.



NOTE

The solution flows for 4 seconds after the trailing edge of the film leaves the DETECTOR ROLLERS.

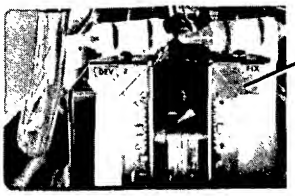
7. Repeat step 6 to check the flow rate again before making any necessary adjustments.

*See the manufacturer's recommendation for the correct flow rates.

FIGURE 14

12 (R) Checking the Replenishment Rates

(Page 2 of 2)



8. Adjust the REPLENISHER PUMP if necessary.

9. Clean the CHECK TUBE *before you insert it into* the FIXER TANK.

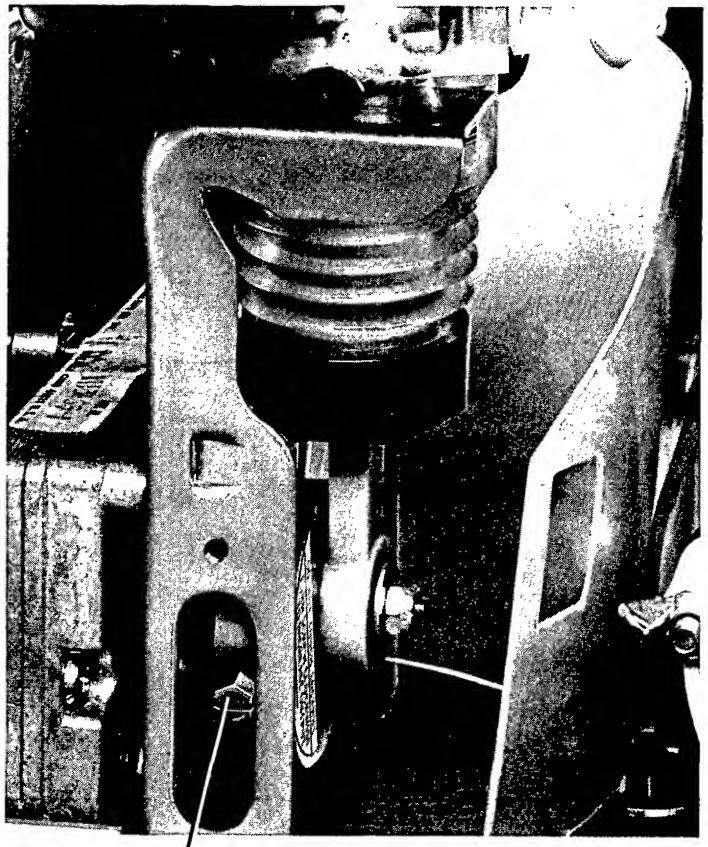
CAUTION

Do not drain the fixer from the TANK.

10. Do steps 5–9 again to check and adjust the fixer replenishment rate.

FIGURE 15

Adjusting the Replenishment Rates



CAUTION

Do *not* hold the LOCKNUT.

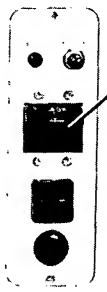
Rotate the ADJUSTING SCREW:

decreases output

increases output

FIGURE 16

14 Installing the RACK and CROSSOVER ASSEMBLIES



1. Move the PROCESSOR CIRCUIT BREAKER to "OFF."

NOTE

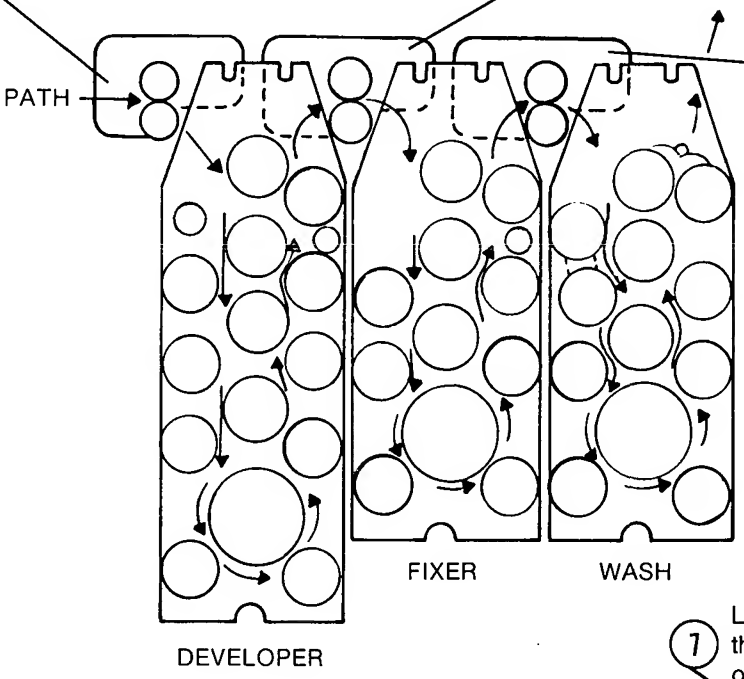
Use the RACK DRIP TRAY 459432 when you install or remove the RACK ASSEMBLIES.

2. Install the DEVELOPER RACK ASSEMBLY 474483 and the FIXER RACK ASSEMBLY 532012.

3. Install the DETECTOR CROSSOVER ASSEMBLY 474481.

4. Install the DEVELOPER/FIXER CROSSOVER ASSEMBLY 474484.

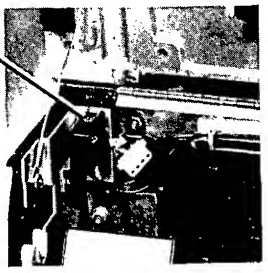
5. Install the FIXER/WASH CROSSOVER ASSEMBLY 532004.



IMPORTANT

Check that they are seated correctly.

7. Lift the LEVER of the INTERLOCK SWITCH so that the PROCESSOR operates with the cover open.



6. Move the PROCESSOR CIRCUIT BREAKER to "ON."

FIGURE 17

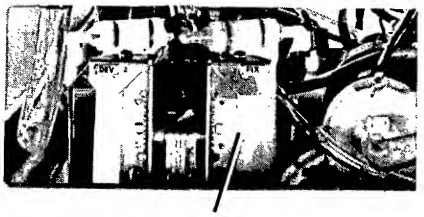
Checking the Operation of the DETECTOR SWITCH ASSEMBLIES

15

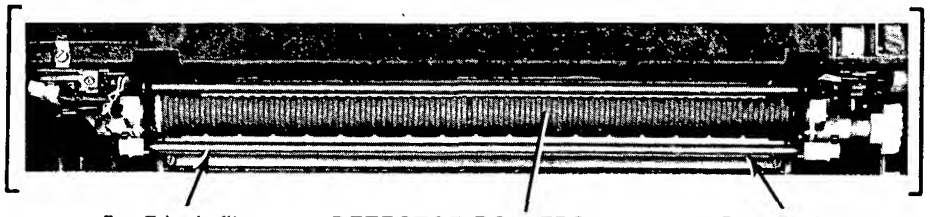
WARNING

Dangerous Voltage

1. Move the CIRCUIT BREAKER to "ON." The REPLENISHER PUMP does not operate.
2. Feed a 12.7 x 17.8 cm (5 x 7-inch) or larger film between the DETECTOR ROLLERS. The PUMP operates if the film is between the DETECTOR ROLLERS.
3. Check each SWITCH ASSEMBLY.



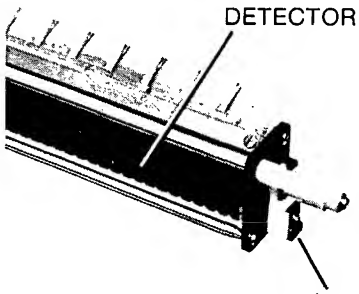
REPLENISHER PUMP



Adjusting the DETECTOR SWITCH ASSEMBLIES

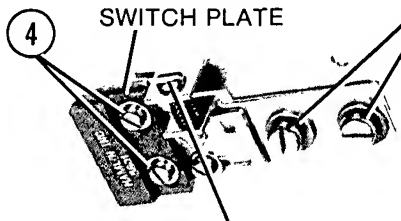
16

1. Disconnect the CONNECTOR from the IDLE SIDE to check the DRIVE SIDE or the CONNECTOR on the DRIVE SIDE to check the IDLE SIDE.
2. Measure the distance between the MAGNET and the SWITCH. If the distance is *not* 1.59—3.18 mm (1/16–1/8 inch), do the following:
   - **a.** Loosen the SCREW.
   - **b.** Move the MAGNET.
   - **c.** Tighten the SCREW.
3. Align the MAGNET with the SWITCH when film is between the DETECTOR ROLLERS. If adjustment is necessary, do the following:
   - **a.** Loosen the SCREWS.
   - **b.** Move the SWITCH PLATE.
   - **c.** Tighten the SCREWS.



Loosen the 2 SCREWS. Lower the SWITCH until the PUMPS operate.

Loosen the 2 HOLDING SCREWS. (5)



6. If the PUMP does not operate after step 5, lower the SWITCH by rotating the ADJUSTING SCREW until the PUMP does operate.
7. Tighten the 2 HOLDING SCREWS.
8. Do steps 1—7 to check the other DETECTOR SWITCH ASSEMBLY.

FIGURE 18

17 (R) Checking the Operation of the ACCESSORY SAFELIGHT and the BUZZER

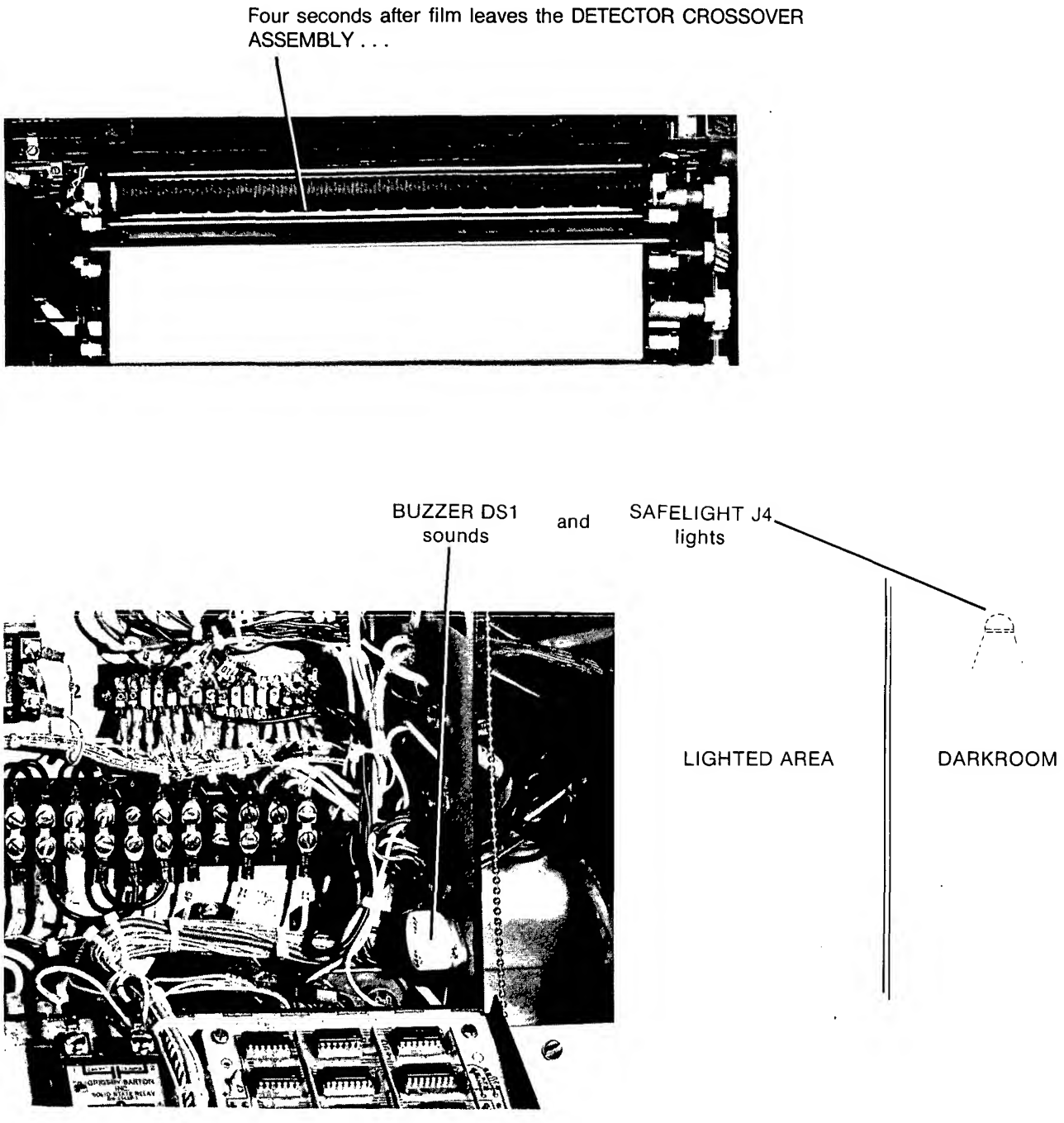
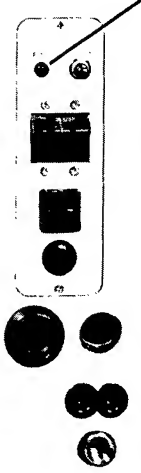
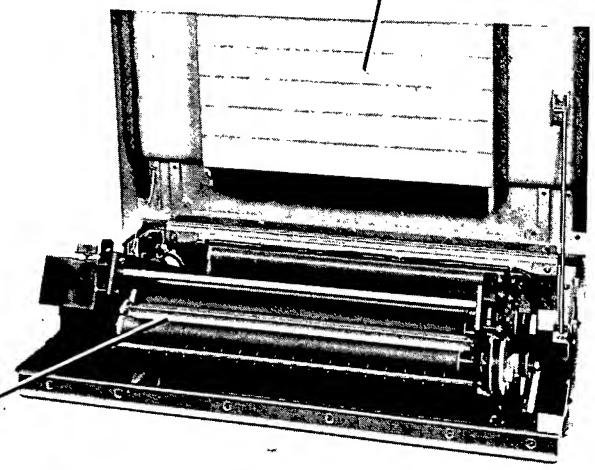


FIGURE 19

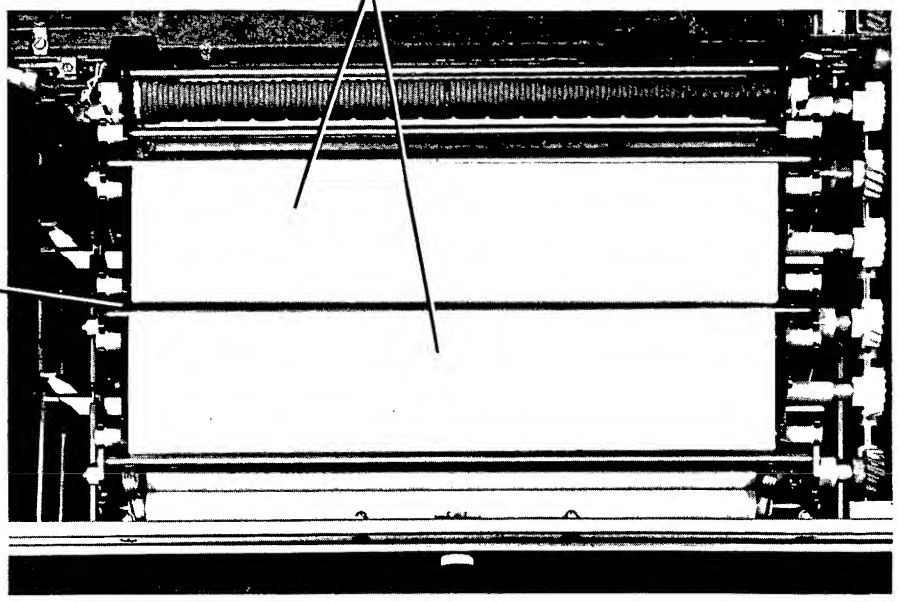
(R) Checking the Temperature of the Developer

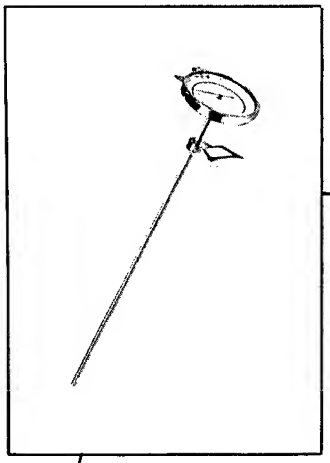
1. When the "READY" LIGHT flickers, lift the COVER ASSEMBLY and the DRYER TRANSPORT ASSEMBLY.





2. Remove the EVAPORATION COVERS (2).





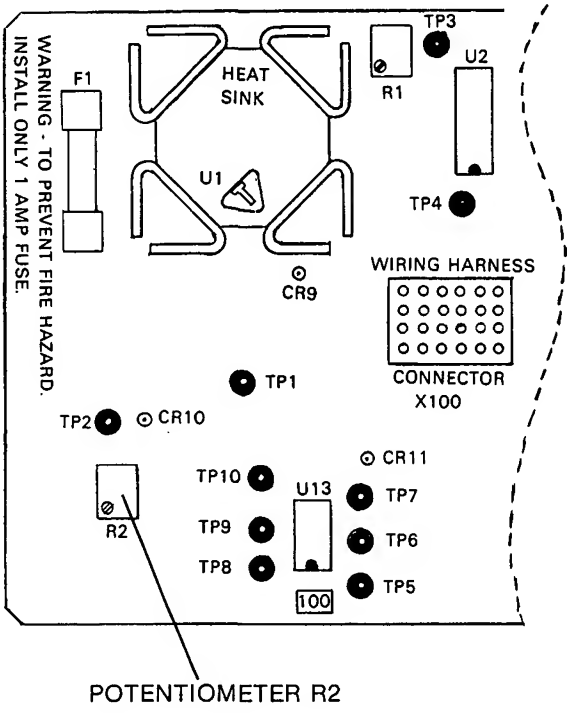
3. Insert a thermometer in the DEVELOPER TANK.
   Check for the following temperature:
   - 94°F (60 Hz) for Serial No. 16001 and above
   - 94°F (60 Hz) for Serial No. 16000 and lower with Modification No. 2
   - 92°F (50 Hz) for Serial No. below 16001 not equipped with Modification No. 2
   - 92°F (50 Hz)

   If necessary, adjust the temperature of the developer. See Figure 21.

FIGURE 20

19 Adjusting the Temperature of the Developer

100 CIRCUIT BOARD



CAUTION

To prevent damage to the 100 CIRCUIT BOARD use an insulated screwdriver.

(1) If it is necessary to adjust the temperature of the developer, adjust POTENTIOMETER R2.

decreases temperature

increases temperature

(2) Install the EVAPORATION COVERS and the SEPARATION COVER.

See Figure 22 for the correct position.

(A) IMPORTANT

The DEVELOPER RECIRCULATION SYSTEM will not operate with water unless it has sufficient electrolytic properties to conduct a small current. Water may or may not be a conductor depending on the mineral content. If necessary, add 1 cup of developer to the water to achieve proper operation.

Lower the DRYER TRANSPORT ASSEMBLY and the COVER ASSEMBLY. (3)

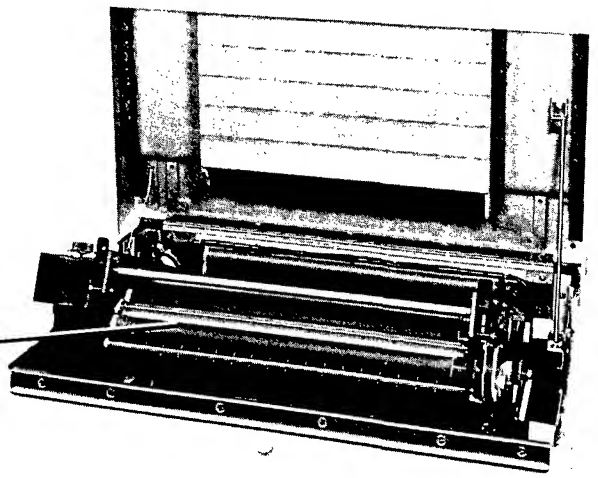
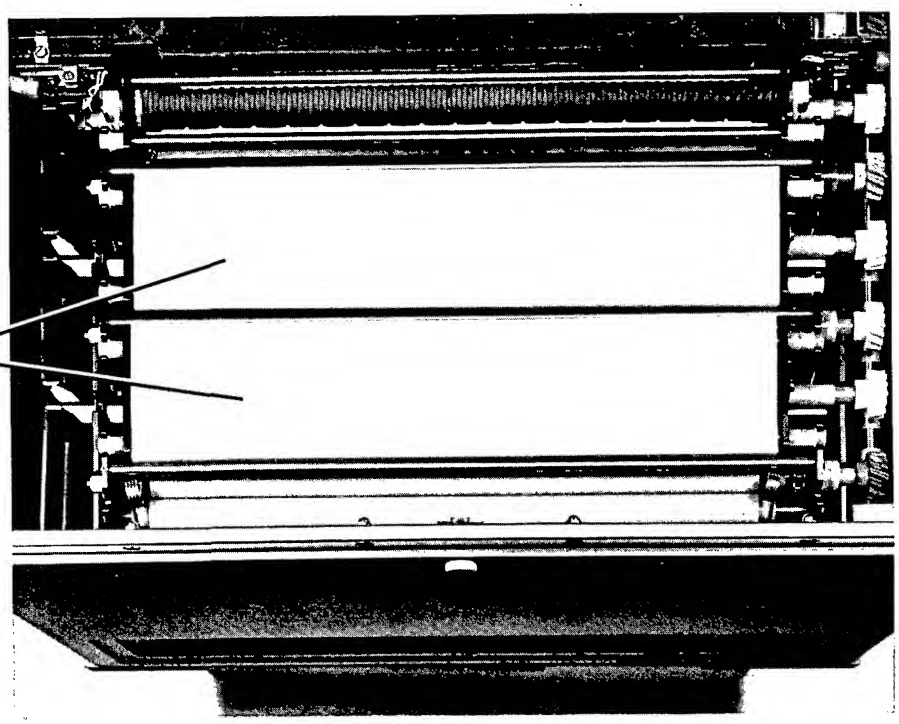


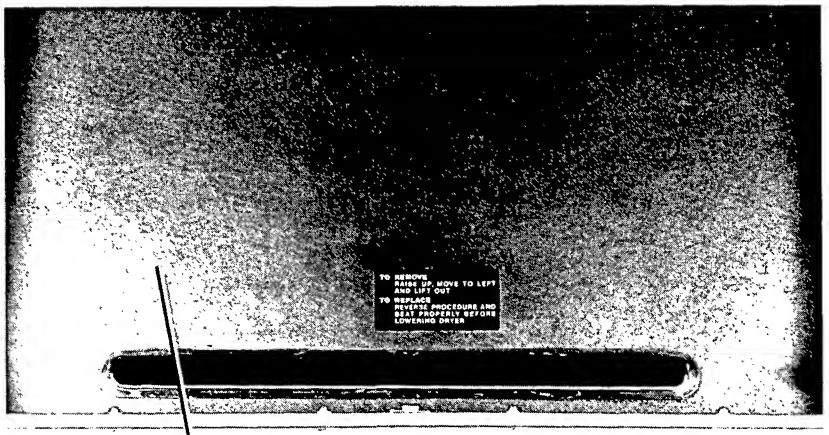
FIGURE 21

Installing the EVAPORATION COVERS and the SEPARATION COVER

20

(R) Install the EVAPORATION COVERS (2) 613122.

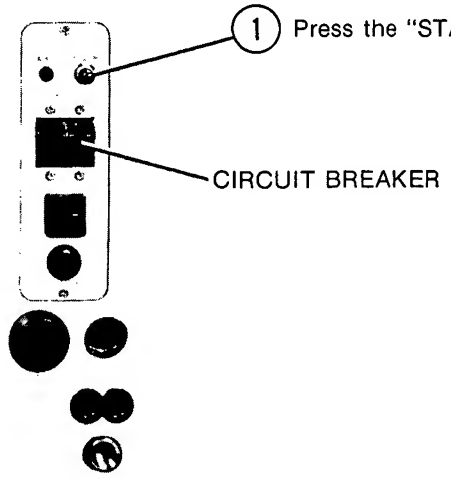




2 Install the SEPARATION COVER.

FIGURE 22

21 Adjusting the "Clear Time"

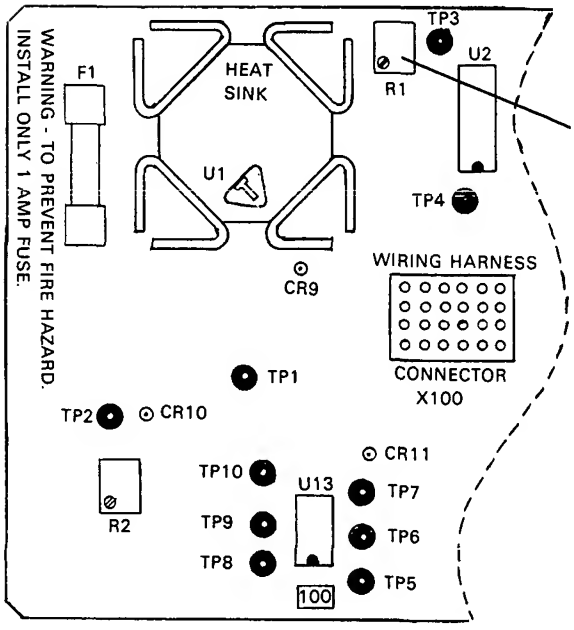


(1) Press the "STANDBY" BUTTON.

CIRCUIT BREAKER

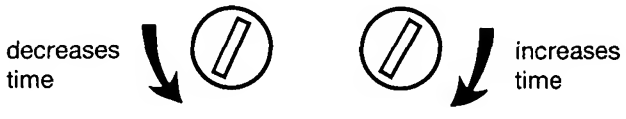
CAUTION

To prevent damage to the 100 CIRCUIT BOARD, use an insulated screwdriver.



100 CIRCUIT BOARD

(2) If it is necessary to adjust the clear time from 3 to 4 minutes, adjust POTENTIOMETER R1.



(3) Move the CIRCUIT BREAKER to "OFF."

FIGURE 23

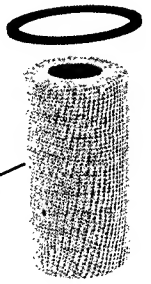
Installing the DEVELOPER FILTER CARTRIDGE

22

Lift the FILTER ASSEMBLY above the level of the developer. Developer will flow back into the TANK. (1)

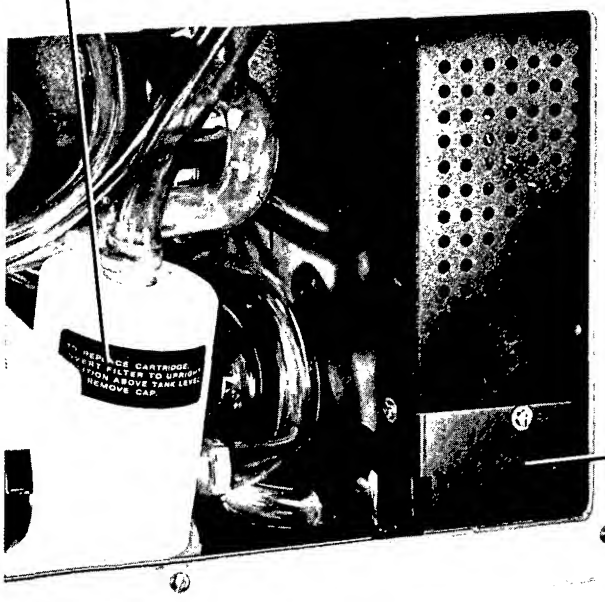
NOTE

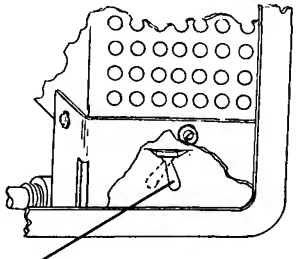
Soak the FILTER CARTRIDGE in warm water before installing.



FILTER CARTRIDGE

(R) (2) Install the FILTER CARTRIDGE 562790. Use the instructions on the FILTER ASSEMBLY.





(3) Check that the STANDBY OVERRIDE SWITCH is in the "OFF" position.

FIGURE 24

23 (R) Filling the TANKS with Chemicals
(Page 1 of 4)

1. Remove all three WEIRS to drain the tanks.

CAUTION

Do not allow fixer to contaminate the developer.

3. Use a damp cloth to clean the TANKS in the PROCESSOR.

CAUTION

Do *not* connect the main power before the DEVELOPER and FIXER TANKS are full.

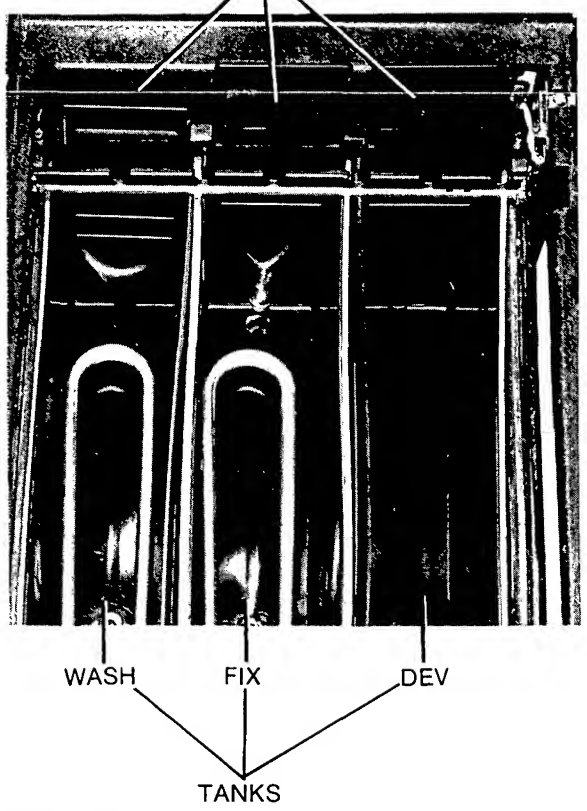
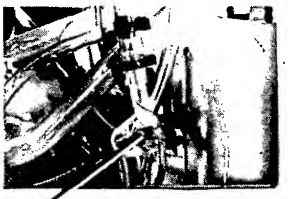


FIGURE 25



2. Open the CLAMP for the WASH TANK.

4. Mix the developer and fixer solutions.

CAUTION

Check that the lines to the REPLENISHER PUMPS are connected correctly. Check that the floating lids are in the REPLENISHER TANKS.

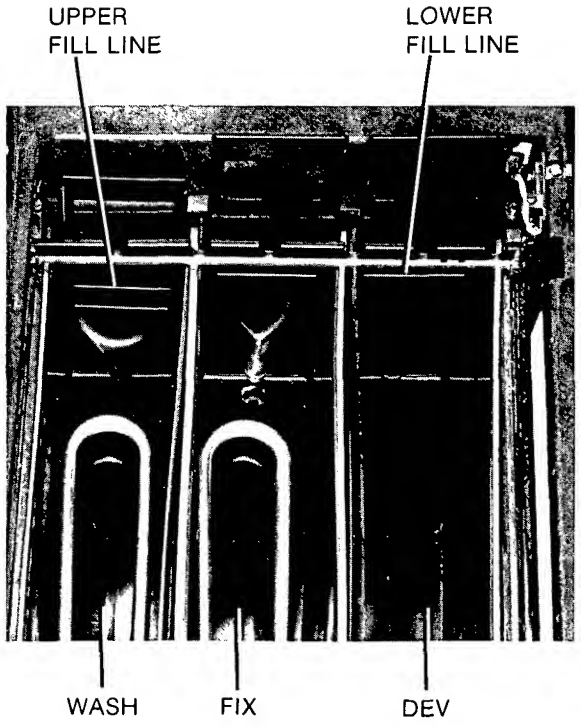
5. Install all 3 WEIRS 532136.

6. Close the CLAMP for the WASH TANK.

NOTE

The WEIR in the WASH TANK has to be 6.4 mm (1/4 inch) lower than the other WEIRS.

(7) Install the SPLASH GUARD ASSEMBLY 532366.



(8) Fill the FIXER TANK to the UPPER FILL LINE.

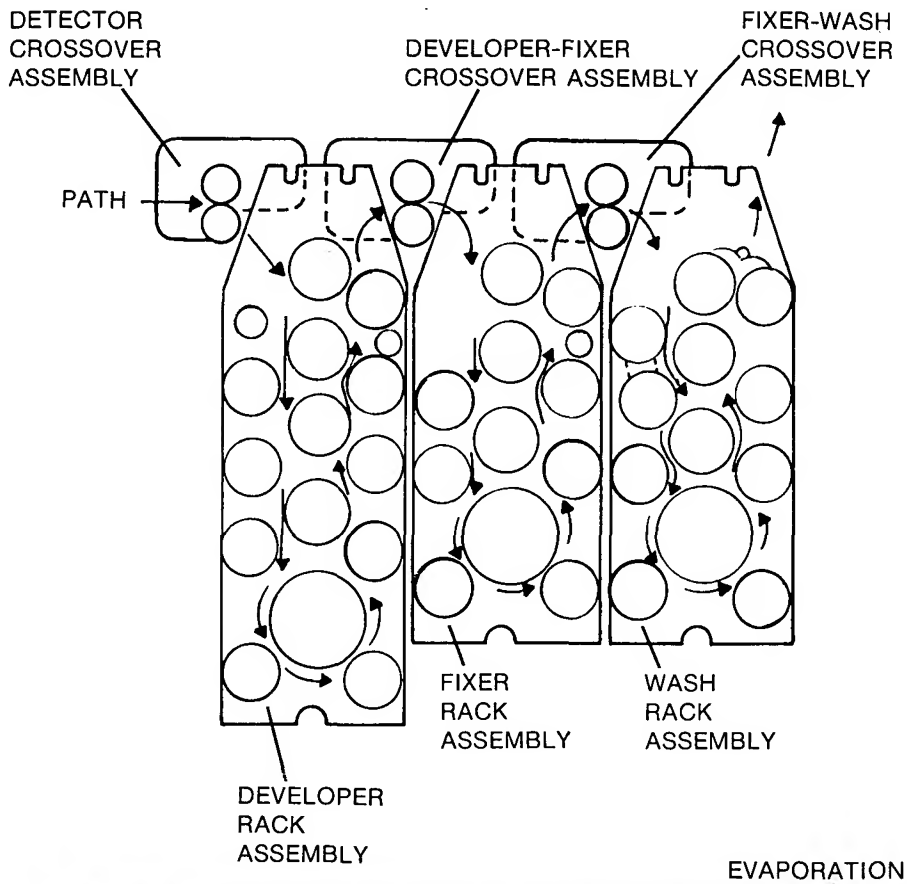
(9) Fill the DEVELOPER TANK to the LOWER FILL LINE with developer-replenisher solution. Add the correct amount of developer starter.

(10) Fill the WASH TANK with water.

FIGURE 26

23 Filling the TANKS with Chemicals
(Page 3 of 4)

(11) Check that the following parts are in position:



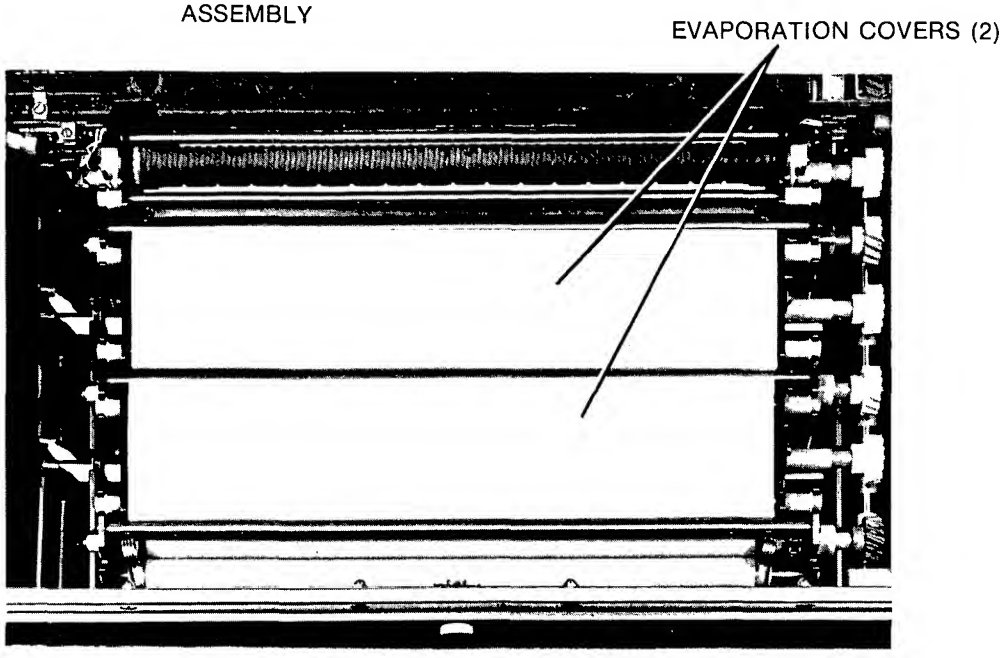
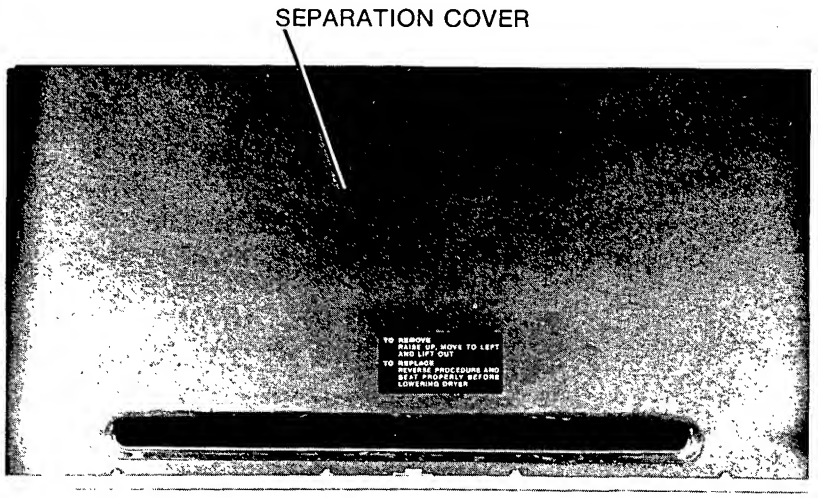
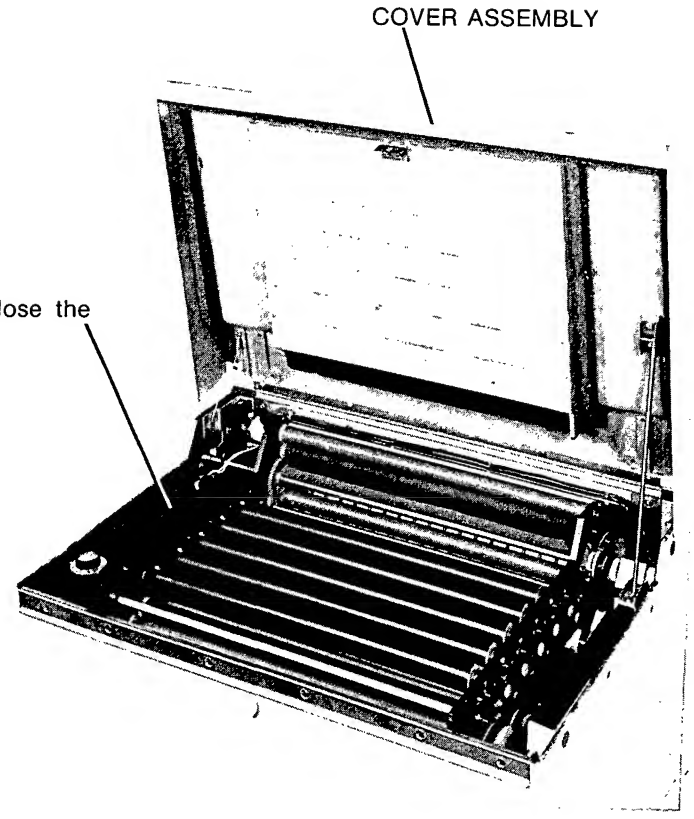


FIGURE 27

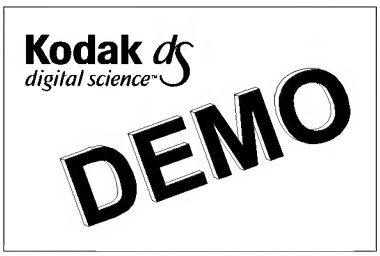




(12) Lower the DRYER ASSEMBLY and close the COVER ASSEMBLY.

(13) With the dryer and developer at the correct temperatures, feed 3 or 4 test films to check operation and transport.

FIGURE 28



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